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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,407	07/03/2003	Kazuo Sato	030806	3576

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EXAMINER

PEARSE, ADEPEJU OMOLOLA

ART UNIT PAPER NUMBER

1761

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/612,407	SATO ET AL.	
	Examiner	Art Unit	
	Adepeju Pearse	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>11/4/2003, 6/3/05</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

*[Handwritten signature]*

## DETAILED ACTION

### *Claim Objections*

1. Claims 9, 10 and 15 are objected to because of the following informalities: The claims recite the word "made act" in lines 1-2. It is unclear what this means. Appropriate correction is required. For examining purposes the claims are examined to examiner's best interpretation.

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 9, 10, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are rejected as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: The claims do not recite the steps/procedure for manufacturing beer. Appropriate correction is required.

3. Claim 7 recites the limitation "wherein the malt and adjuncts" in line 1. There is insufficient antecedent basis for this limitation in the claim.

4. Claims 9 and 10 recite the limitation "in the high gravity brewing of beer" in line 2. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 11 recites the limitation "wherein a brewer's yeast" in line 1. There is insufficient antecedent basis for this limitation in the claim.

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6. Claim 13 recites the limitation "wherein the concentration of original extract of wort is 13-30 weight %" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 15 recites the limitation "enhance real degree of" in line 2. It is unclear what this means. Appropriate correction is required.
8. Claim 16 recites the limitation "wherein a brewer's yeast or a yeast for brewing other than a brewer's yeast is used" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.
9. Claim 18 recites the limitation "wherein the concentration of original extract of wort is over 10 and not more than 30weight% in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claim 1, 4, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sekibata et al (E.P. Publication Number 0,523,333 A1). With regard to claim 1 and 4, Sekibata et al disclose the addition of  $\alpha$ -glucosidase during the steps of preparing beer, especially at a mashing process in a conventional method for producing beer to convert fermentable sugars in the wort to non-

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fermentable sugars (page 3 lines 1-4). It is inherent that the mashing process is prior to the heating step.

12. With regard to claim 8, Sekibata et al disclose a non-alcohol and low alcohol beverage produced by adding  $\alpha$ -glucosidase during a mashing process in a conventional method for producing beer. It is inherent that the end products, even though the method of production might be slightly different are similar because both beverages contain  $\alpha$ -glucosidase.

### ***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 2 - 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sekibata et al (E.P. Publication Number 0,523,333 A1) in view of Hamdy (U.S. Patent Number 4,929,452), Owades et al (U.S. Patent Number 4,837,034) and Satoshi et al (JP Publication Number 05-068529). Sekibata et al failed to disclose a heat treatment step. However, Hamdy teaches that

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extra enzymes can be added during mashing to break down malt substances (Col 3 lines 51-52) and liquid wort is boiled after mashing (Col 1 lines 41-46). It would have been obvious to one of ordinary skill in the art to modify Sekibata et al with Hamdy because it is well known in beer production to boil or heat wort for sterilization, to make the wort concentrated and also to provide an opportunity to add flavor.

16. With regard to claim 3, Sekibata et al failed to disclose adding  $\alpha$ -glucosidase simultaneously with ground malt. However, Hamdy teaches that the feedstock for beer is malt formed from cereal mash (Col 3 lines 43-44) and that beer is prepared by the fermentation of a mash formed from cereal grains (Col 4 lines 4-5). It would have been obvious to one of ordinary skill in the art to expect that the cereal mash is ground malt, formed during the mashing process where  $\alpha$ -glucosidase is added.

17. With regard to claim 5, Sekibata et al failed to disclose adding  $\alpha$ -glucosidase during the malting process. However, Hamdy teaches that malting cereal grains such as barley enables seeds to form appropriate enzymes to break down polysaccharides within the seeds of the seeds (Col 1 lines 33-37) and then mixing the malt with water and mashing to prepare the wort (Col 1 lines 41-43). It would have been obvious to one of ordinary skill in the art to modify Sekibata et al with Hamdy because it would be expected that the  $\alpha$ -glucosidase is added during the mashing stage, which is included in the malting process as disclosed by the reference.

18. With regard to claim 6, Sekibata et al failed to disclose using only malt as an ingredient. However, Owades et al (U.S. Patent Number 4,837,034) teach an all-malt beer characterized by full body and flavor (Abstract, Col 2 lines 1-3). It would have been obvious to one of ordinary

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skill in the art to modify Sekibata et al with Owades et al because an all malt beer would be devoid of grainy matter and be characterized with full body and flavor.

19. With regard to claim 7, Sekibata et al failed to disclose using malt and adjuncts as sugar ingredients. However, Owades et al teach malt and other cereals are converted into sugar during the mashing operation and conventional mashing involves mixing together malt with or without cereal adjuncts (Col 1 lines 18-22). It would have been obvious to one of ordinary skill in the art to modify Sekibata et al with Owades et al because the sugar produced will perform the same function as recited by the applicant.

20. With regard to claims 9,10 and 15, Sekibata et al failed to disclose adding  $\alpha$ -glucosidase to the fermentation process. However, Satoshi et al teach adding  $\alpha$ -glucosidase to wort in a fermentation process in beer production (Abstract). It would have been obvious to expect that the addition of  $\alpha$ -glucosidase will reduce acetic acid as recited by the applicant in the claim.

21. With regard to claims 11 and 16, Sekibata et al failed to disclose the kind of yeast used. However, Owades et al teach using brewers yeast to ferment the wort into beer (Abstract). It would have been obvious to one of ordinary skill in the art to modify Sekibata et al because brewers yeast will ferment the wort.

22. With regard to claims 12 and 17, Sekibata et al failed to disclose other yeast other than brewer's yeast. However, Shimamura et al teach using sake yeast or wine yeast in order to have different kinds of flavors for sparkling alcoholic beverages (Col 1 lines 41-43, see examples 6 & 7). It would have been obvious to one of ordinary skill in the art to modify Sekibata et al with Shimamura et al because a variety of flavored alcoholic beverages will be produced.

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23. With regard to claim 13, Sekibata et al failed to disclose the wt% range for the concentration of original wort. However, Satoshi et al teach adding  $\alpha$ -glucosidase to wort in a fermentation process in beer production (Abstract). It would have been obvious to expect the wt% range recited by the applicant because  $\alpha$ -glucosidase will be expected to perform its function at a required wort concentration in order for it to be effective.

24. With regard to claims 14 and 19, Sekibata et al disclose that the amount of  $\alpha$ -glucosidase incorporated is determined by taking into account the concentration of fermentable sugar in the mash (Page 3 lines 28-30). It would have been obvious to one of ordinary skill in the art to expect that the range recited by the applicant could be within the reference's range since it is a function of the mash amount.

25. With regard to claim 18, Sekibata et al and Satoshi et al disclose an original extract of 10.9% and 11% (See table 1 and 3). These wt% are within the applicant's claim.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adepeju Pearse whose telephone number is 571-272-8560. The examiner can normally be reached on Monday through Friday, 8.00am - 4.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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